

ZT-1a, SPAK kinase inhibitor

Catalog	Unit
TBI4402-5MG	5 mg
TBI4402-25MG	25 mg

Product Details

Formal Name: 5-Chloro-N-[5-chloro-4-[(4-chlorophenyl)-cyanomethyl]-2-methylphenyl]-2-hydroxybenzamide

Molecular Formula: C₂₂H₁₅Cl₃N₂O₂

Formula Weight: 445.7

CAS Number: 212135-62-1

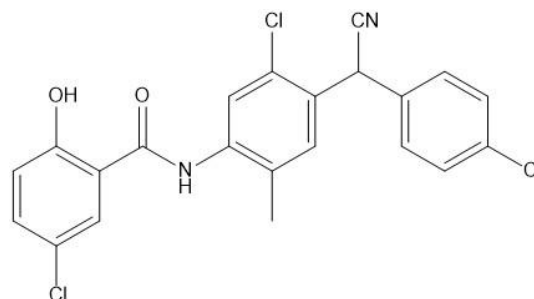
Purity: >98%

Formulation: Powder

Solubility: Soluble in DMSO (up to at least 25 mg/ml).

Storage: -20°C

Stability: ≥ 2 years.



Applications

SPAK kinase inhibitor

Functions

A non-ATP competitive inhibitor ($IC_{50} = 44.3 \mu M$ @ 0.01 mM ATP) of SPAK kinase (STK39), a master regulator of cation-Cl⁻ cotransporters. It attenuated cerebral edema, protected against ischemic brain damage, and improved post-ischemic neurological outcomes in mouse models of stroke. ZT-1a showed neuroprotective effects in mouse models of vascular dementia and multiple sclerosis. It inhibited the progression of hepatocellular carcinoma in rodent models and showed synergistic effects with PD-1 antibodies by helping to prevent tumor microenvironment immune exhaustion.

Application Procedures

First dissolved in DMSO (up to at least 25 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20°C for up to 3 months.

For research use only.